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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,484	10/29/2003	John M. Smith III	2250-13A	6978
4678 7590 02/06/2008 MACCORD MASON PLLC 300 N. GREENE STREET, SUITE 1600 P. O. BOX 2974 GREENSBORO, NC 27402				
EXAMINER CAMERON, ERMA C				
ART UNIT PAPER NUMBER 1792				
MAIL DATE DELIVERY MODE 02/06/2008 PAPER				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/696,484

Applicant(s)

SMITH ET AL.

Examiner

/Erma Cameron/

Art Unit

1792

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2007 and 04 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-43 is/are pending in the application.
- 4a) Of the above claim(s) 25-29, 35-39 and 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-24, 30-34, 40, 42-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The rejection of Claims 23-24, 30-34, 40 and 42-43 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, is withdrawn because of the amendment filed 1/31/2007.

3. The rejection of Claims 23-24, 30-34, 40 and 42-43 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, is withdrawn because of the amendment filed 1/31/2007.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 40 contains the trademark/trade name Trevira CS. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a flame resistant fabric and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1792

7. Claims 24, 42 and 43 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 08 - 260353.

See Abstracts and partial machine translation.

'353 teaches treating a P-containing flame retardant polyester with a composition that produces water repellency, flame retardancy and is antimicrobial. The polyester is made into car seats, etc. The immersion application is equivalent to padding. (see Abstract; claims; [0003] [0010] [0011] [[0019] [0020] [0035])

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 23, 33-34 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08 - 260353.

'353 is applied here for the reasons given above.

'353 does not disclose the % of antimicrobial that is in the treatment composition but it would have been obvious to one of ordinary skill in the art to have optimized the % depending on the eventual use of the fabric.

It would appear that fabric, being the same type of flame retardant polyester used by applicant, and treated with a fire resistant compound would pass the fire test of claim 23.

'353 does not disclose that the fabric is Trevira CS, but the P-containing polyesters of '353 would be inclusive of Trevira CS.

10. Claims 23-24, 30-31, 33-34, 40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-157977 taken in view of White et al (A Comparison of Antimicrobials for the Textile Industry, 2000).

'977 teaches applying by immersion or other methods a fluoropolymer waterproofing and flame retardant P-300 or CDP composition to a fire-resistant polyester (Trevira CS) (see Abstracts and [004], [0007], [0013], [0021], [0022] and Table I of translation). Immersion would inherently saturate the polyester Trevira cloth. As a fire-resistant polyester, Trevira CS would inherently pass the NFPA 701 test.

'977 does not teach that the composition is applied by padding, but it would have been obvious to one of ordinary skill in the art to have used a conventional application method such as padding in the '977 process.

'977 does not teach the use an antimicrobial such as an organosilane.

White teaches that a molecularly bound organosilane is used as an antimicrobial in the textile industry (p 2).

It would have been obvious to one of ordinary skill in the art to have used the antimicrobial organosilanes of White in the treatment composition of '977 because of the need

for an antimicrobial on a fabric exposed to the weather and wetness as the light-weight tent or canvas fabric of '977 is.

White does not teach the % of antimicrobial to add, but it would have been obvious to one of ordinary skill in the art to have optimized the level of antimicrobial through no more than routine experimentation as concentration is known to be an important factor to control in achieving efficacy of an antimicrobial.

'977 does not specifically teach the products of claim 43, but the light-weight canvas of '977 could presumably be used to cover furniture, particularly outdoor furniture, or be used to make drapery.

11. Claims 23-24, 30-34, 40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-157977 taken in view of Blehm et al (4842766).

'977 is applied here for the reasons given above.

'977 does not teach the using an antimicrobial such as an organosilane like the silane of claim 32.

'766 teaches that a silane such as 3-(trimethoxysilyl)-propyldimethyloctadecyl ammonium chloride may be used as an antimicrobial on polyester fabric at 0 to 5 weight % (see Example 5). Silanes are known as coupling agents, because they covalently bind to other substances. '766 reports that the silane is durably bound to the substrate it is applied to (8:3-8).

The application concentration overlaps with applicant's claimed concentration.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. See *In re Malagari* 182 USPQ 549.

It would have been obvious to one of ordinary skill in the art to have used the antimicrobial silane of '766 in the treatment composition of '977 because of the need for an antimicrobial on a fabric exposed to the weather and wetness as the light-weight tent or canvas fabric of '977 is.

'977 does not specifically teach the products of claim 43, but the light-weight canvas of '977 could presumably be used to cover furniture, particularly outdoor furniture, or be used to make drapery.

12. Claims 23-24, 30-34, 40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07 – 157977 taken in view of Goad et al (4822667).

'977 is applied here for the reasons given above.

'977 does not teach applying an antimicrobial such as the antimicrobial of claim 32.

'667 teaches applying a composition of flame resistant, water repellent and antimicrobial materials to polyester in a padding bath (see Abstract; 4:4-5:67)). The antimicrobial is 3-(trimethoxysilyl)-propyloctadecyl dimethyl ammonium chloride (5:12-15), the same silane as in claim 32. It is at 0.5-5.0 wt% (5:40-42), which overlaps with applicant's claimed range.

It would have been obvious to one of skill in the art to have used in antimicrobial of '667 in the '977 treatment of polyester because of the teaching of '667 that an antimicrobial is conventional in a water-repelling, flame resistant treatment of polyester.

13. Claims 23-24, 30-31, 33-34, 40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 503114 taken in view of White et al (A Comparison of Antimicrobials for the Textile Industry, 2000).

'114 teaches applying a composition comprising a waterproofing fluorocarbon like Scotchguard and a flame retardant to Trevira CS to give the Trevira oil-, soil-, and water-repellency as well as durable flame retardation (see Abstracts, in particular the WPIX Abstract, and pages 4-6, claims 1, 7, 11). As a fire-resistant polyester, Trevira CS would inherently pass the NFPA 701 test.

'114 teaches that the composition is applied in a finishing bath (page 9), but does not teach that the composition is applied by padding. But it would have been obvious to one of ordinary skill in the art to have used a conventional application method such as padding in the '114 process.

'114 does not teach the use an antimicrobial such as an organosilane.

White teaches that a molecularly bound organosilane is used as an antimicrobial in the textile industry (p 2).

It would have been obvious to one of ordinary skill in the art to have used the antimicrobial organosilanes of White in the treatment composition of '114 because of the need

for an antimicrobial on a fabric exposed to the weather and wetness as the awning fabric of '114 is (page 5).

White does not teach the % of antimicrobial to add, but it would have been obvious to one of ordinary skill in the art to have optimized the level of antimicrobial through no more than routine experimentation as concentration is known to be an important factor to control in achieving efficacy of an antimicrobial.

'114 does not specifically teach the products of claim 43, but the fabric of '114 could presumably be used to cover furniture, particularly outdoor furniture, or be used to make drapery.

14. Claims 23-24, 30-34, 40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 503114 taken in view of Blehm et al (4842766).

'114 is applied here for the reasons given above.

'114 does not teach the using an antimicrobial such as an organosilane like the silane of claim 32.

'766 teaches that a silane such as 3-(trimethoxysilyl)-propyldimethyloctadecyl ammonium chloride may be used as an antimicrobial on polyester fabric at 0 to 5 weight % (see Example 5). Silanes are known as coupling agents, because they covalently bind to other substances. '766 reports that the silane is durably bound to the substrate it is applied to (8:3-8).

The application concentration overlaps with applicant's claimed concentration.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. See *In re Malagari* 182 USPQ 549.

It would have been obvious to one of ordinary skill in the art to have used the antimicrobial silane of '766 in the treatment composition of '114 because of the need for an antimicrobial on a fabric exposed to the weather and wetness as the awning fabric of '114 is (page 5).

'114 does not specifically teach the products of claim 43, but the fabric of '114 could presumably be used to cover furniture, particularly outdoor furniture, or be used to make drapery.

15. Claims 23-24, 30-34, 40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 503114 taken in view of Goad et al (4822667).

'114 is applied here for the reasons given above.

'114 does not teach applying an antimicrobial such as the antimicrobial of claim 32.

'667 teaches applying a composition of flame resistant, water repellent and antimicrobial materials to polyester in a padding bath (see Abstract; 4:4-5:67)). The antimicrobial is 3-(trimethoxysilyl)-propyloctadecyl dimethyl ammonium chloride (5:12-15), the same silane as in claim 32. It is at 0.5-5.0 wt% (5:40-42), which overlaps with applicant's claimed range.

It would have been obvious to one of skill in the art to have used in antimicrobial of '667 in the '977 treatment of polyester because of the teaching of '667 that an antimicrobial is conventional in a water-repelling, flame resistant treatment of polyester.

Response to Arguments

16. The applicant has argued that antimicrobials would deleteriously affect the FR properties of a flame resistant polyester, but offers no proof of this. The applicant also argues that the manufacturer warns against adding finishes to such polyesters. However, neither '977 or '114 teach against adding antimicrobials.

Declaration

17. The Declaration under 37 CFR 1.132 filed 1/4/2008 is insufficient to overcome the rejection of claims 23-24, 30-34, 40 and 42-43 based upon JP 07 – 157977, White, 4842766 and EP 503114 as set forth in the last Office action because: the technical arguments are answered above. The applicant has also argued that the invention has had substantial commercial success. However, the applicant has not established the required nexus between the claimed invention and commercial success, nor has provided hard evidence of commercial success.
See MPEP 716.03.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Erma Cameron/ whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Erma Cameron/
Primary Examiner, Art Unit 1792
January 30, 2008

/Erma Cameron/
Primary Examiner
Art Unit 1792